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(54) **METHOD FOR FABRICATING MOS SEMICONDUCTOR DEVICE HAVING SALICIDE REGION AND LDD STRUCTURE**

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(58) **Field of Search** 438/305, 529, 438/FOR 188

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(57) **ABSTRACT**

A method for fabricating a MOS transistor involves forming a buffering layer on an active region, performing an ion implantation to form a heavily doped region (source/drain region), and forming a self-aligned silicide region (salicide region) on exposed silicon and polysilicon gate. With this method, a salicide region free from voids can be formed because transition metal material (for example, cobalt) and silicon atoms at an interface portion between the transition metal layer and the substrate silicon are not locally accelerated or delayed during the formation of the salicide region.

8 Claims, 7 Drawing Sheets